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IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF UTAH, NORTHERN DIVISION

<p>JACOB SEAN BARBEN,</p> <p>Plaintiff,</p> <p>v.</p> <p>BERETTA USA CORP., a Delaware Corporation; SPORTSMAN'S WAREHOUSE, INC., a Utah Corporation; and FEDERAL CARTRIDGE COMPANY, a Minnesota Corporation,</p> <p>Defendants.</p>	<p><b>FEDERAL CARTRIDGE COMPANY'S REPLY MEMORANDUM IN SUPPORT OF MOTION TO EXCLUDE TOM ROSTER</b></p> <p>Case No. 1:16-cv-00094-DN</p> <p>Judge David Nuffer</p>
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Pursuant to Federal Rule of Evidence 702 and DUCivR 7-1, Defendant Federal Cartridge Company ("Federal Cartridge"), by and through counsel, respectfully submits its Reply Memorandum in Support of its Motion to Exclude Tom Roster as an expert in this case.

**INTRODUCTION**

Plaintiff alleges he was injured when the barrel of his shotgun burst while he was hunting pheasants. Plaintiff retained expert Tom Roster to testify that the barrel burst was caused by a

defective shotgun shell. Specifically, Mr. Roster will testify that the plastic hull of Federal Cartridge's round separated from its metal head, otherwise known as a "hull separation," and somehow became lodged in the barrel, causing the barrel to burst upon the firing of the next round. Mr. Roster, however, testified that his opinion is based on an untested theory, and that he is unaware of any instance in which a hull separation has caused a shotgun barrel to burst (or even bulge) upon being fired. Because Mr. Roster's theory is merely an untested hypothesis, defendant Federal Cartridge filed a motion to exclude his testimony on the basis that his opinion is unreliable under Federal Rule of Evidence 702.

In response to Federal Cartridge's motion to exclude, Plaintiff does not dispute that Mr. Roster's theory is merely an untested hypothesis. However, Plaintiff claims that this does not matter because Mr. Roster allegedly excluded any other possible cause of the burst through the process of elimination, and therefore, Mr. Roster's "hull separation" theory must be what caused the accident.

Plaintiff's argument puts the cart before the horse, so to speak. Before his expert can rely on the process of elimination to determine issues of general causation, his expert must first demonstrate that all of the causes that he seeks to eliminate are plausible. In other words, Mr. Roster was required to demonstrate that a "hull separation" could actually cause a shotgun barrel to burst. Because he did not, and cannot, demonstrate that a hull separation can actually cause a gun barrel to burst, he has not met his burden under Rule 702, and Plaintiff's expert must be excluded.

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## ARGUMENT

### I. The Process of Elimination is Not a Reliable Methodology Absent the Expert “Ruling In” The Specific Cause In Question.

Plaintiff argues that Mr. Roster reached his opinion regarding what caused the burst by the “most universally recognized method of expert inquiry: the process of elimination.”<sup>1</sup> Plaintiff, however, fails to fully articulate the test for determining whether the process of elimination is a reliable methodology. It is well established that before an expert can even rely on the process of elimination, the expert must present evidence to show “why the defendant’s product should not be among the possible causes to be eliminated.”<sup>2</sup> In other words, the plaintiff must present evidence to “rule in” the defendant’s product as a scientifically plausible cause before it can demonstrate that the product cannot be “ruled out” through the process of elimination.<sup>3</sup> If the expert cannot demonstrate that the defective product can even cause the type of injury in question, then the expert’s testimony must be excluded.<sup>4</sup>

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<sup>1</sup> Opp. p. 6.

<sup>2</sup> *Truck Ins. Exch. v. MagneTek, Inc.*, 360 F.3d 1206, 1215 (10th Cir. 2004).

<sup>3</sup> *Id.*

<sup>4</sup> *Id.*; see also *Hollander v. Sandoz Pharms. Corp.*, 289 F.3d 1193, 1211 (10th Cir. 2002) (“In order to ‘rule in’ [the drug] as a scientifically plausible cause of Ms. Hollander’s stroke, the Hollanders’ experts would need to present reliable evidence that the drug can cause strokes.”); *Norris v. Baxter Healthcare Corp.*, 397 F.3d 878, 885 (10th Cir. 2005) (holding that a fundamental assumption in a process-of-elimination-type analysis is that the potential causes set forth must actually be capable of causing the injury, “and, of course, expert opinion on this issue of ‘general causation’ must be derived from a scientifically valid methodology”); *Fireman’s Fund Ins. Co. v. Tecumseh Prods. Co.*, 767 F. Supp. 2d 549, 555, (D. Md. 2011) (holding that an expert must “demonstrate that objects and materials are capable of behaving in the manner they hypothesize under the conditions of the event in question”); *Ruggiero v. Warner-Lambert Co.*, 424 F.3d 249, 254 (2d Cir. 2005) (“Where an expert employs differential diagnosis [also known as the process of elimination] to ‘rule out’ other potential causes for the injury at issue, he must also ‘rule in’ the suspected cause, and do so using ‘scientifically valid methodology.’”); *Buck v. Ford Motor Co.*, 810 F. Supp. 2d 815, 830 (N.D. Ohio 2011) (same).

For instance, in *Truck Ins. Exchange v. MagneTek, Inc.*,<sup>5</sup> the plaintiff alleged that the defendant's defective florescent bulbs were the cause of a fire in the plaintiff's restaurant. The plaintiff's expert came to this conclusion through the process of elimination. According to him, there was no other apparent heat source in the area of the fire's origin, and therefore, the bulbs must have caused the fire. Moreover, the plaintiff's expert found that the bulb electrically shorted just prior to the fire, indicating that a certain portion of the bulb known as the ballast was defective. However, the Tenth Circuit held that this was not enough under Rule 702. According to the court, the plaintiff's expert also had to establish that a defective ballast could have actually caused the fire by either getting the bulb hot enough to ignite the wood in the restaurant, or by demonstrating that the wood could have ignited based on long term exposure to the heat generated by the bulb. Because the expert did not demonstrate that the defect alleged in the ballast of the bulb could actually cause a fire, the Tenth Circuit held that the district court was correct in excluding the plaintiff's expert.

In this case, Mr. Roster opines that a hull separation occurred with respect to Federal Cartridge's shotgun round, and that this alleged separation does not occur absent a defect. He further opines that the hull separation must have caused the gun's barrel to burst because he ruled out any other possible causes of the explosion. However, like *Magnetek*, Mr. Roster has not demonstrated that a hull separation can even cause a shotgun barrel to burst upon firing. Indeed, he testified that his conclusion was merely a theory and would require testing to definitively prove, and that he is unaware of any instance in which a separated hull has caused a shotgun

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<sup>5</sup> 360 F.3d 1206 (10th Cir. 2004).

barrel to explode, burst, or even bulge.<sup>6</sup> Under Tenth Circuit precedent, Mr. Roster was required to “rule in” his theory that the burst could have been caused by a hull separation before he could begin his process of elimination. He did not do so. Therefore, his testimony regarding causation must be excluded.

Additionally, none of the cases cited by Plaintiff indicate that the process of elimination is a reliable method to prove causation absent an expert first “ruling in” that his ultimate opinion is plausible. In all of the cases cited by Plaintiff, the process-of-elimination was considered a reliable method because there was no dispute that all of the potential causes identified by the expert, before he engaged in his process of elimination, could actually cause the injury/damage that was being alleged.

In *Werth v. Makita Elec. Works, Ltd.*,<sup>7</sup> for instance, the court held that expert opinion was admissible when he identified three plausible causes of the accident, and ruled out two of the three based on the facts and evidence available to him. In that case, there was no dispute that all of the three plausible scenarios identified by the plaintiff’s expert could have been the cause of the accident. The question was whether the process that the expert used to eliminate the other causes was speculative because he did not perform any destructive testing to rule out the other causes. The court held that there is no per se rule that testing, as opposed to other forms of analysis, is required to rule out other possible causes of the accident. The case of *Farmers Ins., Co., Inc. v. Smith*<sup>8</sup> is in accord. There was no dispute in that case that all of the causes examined

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<sup>6</sup> Motion to Exclude Tom Roster, pp. 3-4 (quoting Roster Depo.).

<sup>7</sup> 950 P.2d 643, 651 (10th Cir. 1991).

<sup>8</sup> 549 P.2d 1026, 1032 (Kan. 1976)

under a process of elimination could plausibly result in the type of injury that occurred. As described above, that is not the case here.

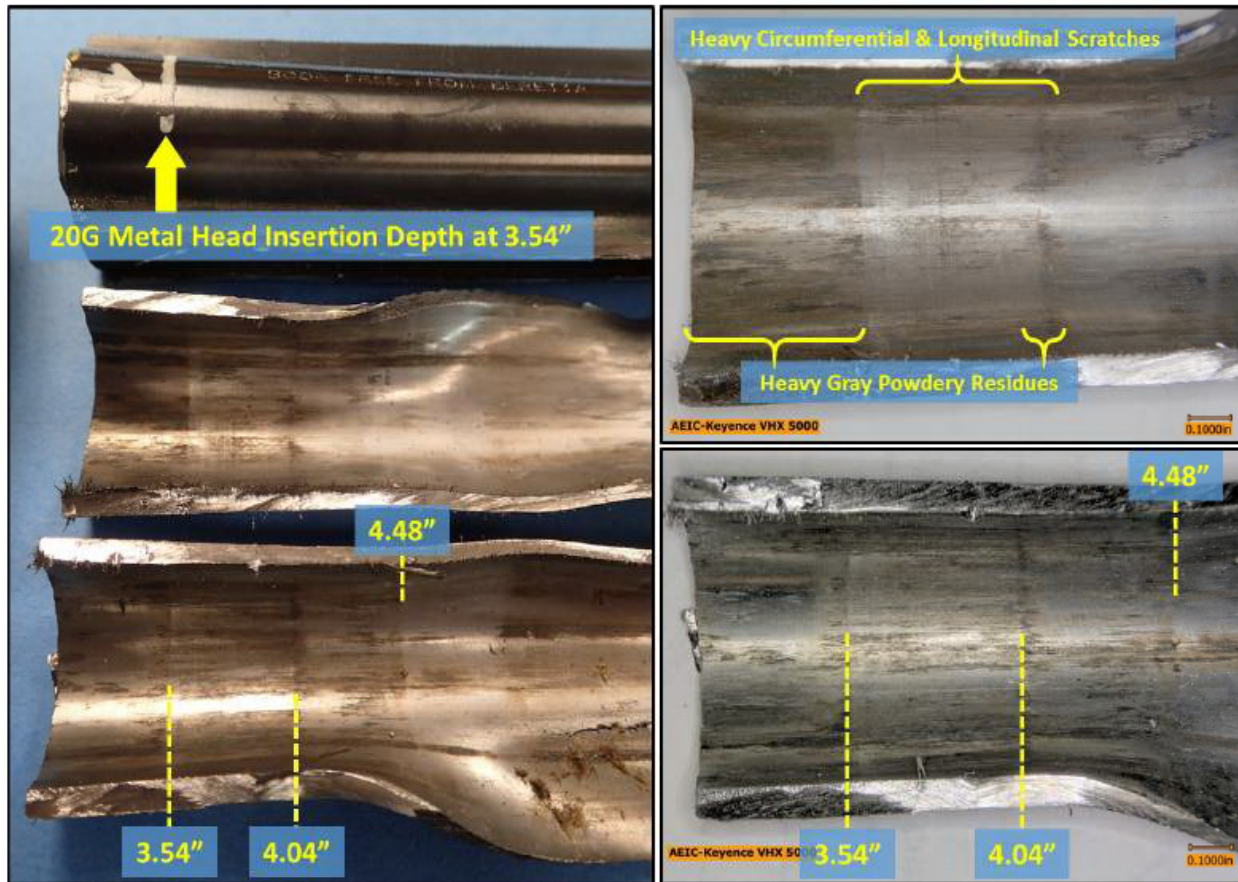
Moreover, Mr. Roster's purported process of elimination is unreliable because he did not actually rule out other possible causes of the accident. For example, he did not rule out a 20-gauge shell as being the source of the barrel obstruction. Mr. Roster testified that he did not "go in there and look for sure to see if there's any streaking or scratching in the burst zone that could have come from ... the rim of a smaller gauge shell."<sup>9</sup> Federal Cartridge's expert Shawn Sapp, Ph.D. did exactly what Mr. Roster recommended; he went "in there" and looked to see if there was any streaking or scratching in the burst zone that could have come from a smaller gauge shell. He concluded that the physical evidence (circumferential scratches and longitudinally streaked or sheared residues) establishes that Plaintiff accidentally loaded the wrong type of shotgun shell in the shotgun (a 20-gauge shell in a 12-gauge shotgun).<sup>10</sup> The streaks and residues are clearly visible, as seen from this image contained in Dr. Sapp's report<sup>11</sup>:

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<sup>9</sup> See Ex. 2 (Doc. 33-2), Roster Depo. 261:11-24 ("Somebody needs to go in there and look for sure to see if there's any streaking or scratching in the burst zone that could have come from a smaller gauge -- the rim of a smaller gauge shell. Those ... things need to be definitely checked and tested for."); see also 138:1-139:4 ("Q. So you would defer to a metallurgist as to whether or not there were some metallic deposits? A. (Nods head). Q. Yes? A. That would be the definitive way to tell if there's any remnants of a 20-gauge shell is if you can find brass or it depends on the 20-gauge load.").

<sup>10</sup> See Doc. 29-1, Shawn Sapp Report, at pp. 32 ("The strongest indications of a 20G barrel obstruction came when the bore of the lower barrel in the burst zone was sectioned and opened, and there were distinct bands of residues at the precise location where a 20G shell would lodge under gravity in the subject barrel, at 3.54" as measured from the barrel breech. The band of circumferential scratches, and longitudinally streaked or sheared residues in the bore section between 3.54" and 4.04" is precisely the kind of witness markings that would be expected in a 20G obstruction event" (emphasis added).)

<sup>11</sup> *Id.* at p. 17.



**Figure 11.** Photo of the fully sectioned and opened lower barrel in the region of interest (at left; 13131 SAS 2-349), which revealed visible bands/streaks of powdery, grey/brown deposits just upstream of the burst zone and ring bulge; similar Keyence microscope images are shown at right with the yellow dashed registration markings based on the distance from the breech end (please note the identical distance measured for the 20G shell insertion depth at the yellow arrow and the most upstream circumferential band at 3.54").

Moreover, expert Steve Rodgers tested and proved this theory by firing exemplar ammunition in an exemplar shotgun that was obstructed by a 20-gauge shell. The firing produced a barrel bulge in the exact same location where Plaintiff's gun burst.<sup>12</sup> Mr. Roster did not, and cannot, explain away the results of Dr. Sapp's physical evidence exam, or of Mr. Rodgers' testing.

<sup>12</sup> See Ex. 3 (Doc. No. 33-3), Steve Rodgers Report, at p. 6; *see also* Ex. 2 (Doc. No. 33-2), Roster Depo. 112:21-24 ("Ring bulges almost always happen in any of the obstruction burst barrels that I have ever been shown that were known obstruction bursts."); 205:13-206:18 (describing spectrum of possible results of firing where there is a barrel obstruction, from minor ring bulge to a burst barrel).



Another possible explanation is a defect in the gun or gun metal. Plaintiff sued the defendant gun manufacturer and accused it of making a defective gun.<sup>13</sup> Mr. Roster testified that he did not have the training and expertise to evaluate and examine the firearm; he could not do metal fatigue or any other kind of chemical analysis on residue. Mr. Roster never ruled out the gun or the gun metal.<sup>14</sup>

Another possible explanation is some type of alteration to the round post-manufacture. Mr. Roster, however, did nothing to rule out this possible cause of the accident either.<sup>15</sup>

In other words, Mr. Roster has not demonstrated that he engaged in a process of elimination at all. His theory of the accident is an untested hypothesis, and his conclusion is not based on any reliable method.

Plaintiff also spends much time arguing that his expert is not required to pin-point the actual defect in the round which caused the “hull separation,” and therefore his expert should not be excluded.<sup>16</sup> But what does that matter? Federal Cartridge never argued that Mr. Roster’s failure to pin-point the exact cause of the hull separation was a basis for excluding him. As described above, the question is not whether Plaintiff’s expert identified a reliable basis for claiming there was a hull separation. Rather, the question is whether Mr. Roster demonstrated that a gun will malfunction in the manner in which it did here (i.e., a barrel burst) based on a hull separation. There is no dispute that Mr. Roster never “ruled in” this theory as a plausible cause of the accident. Therefore, “[t]here is simply too great an analytical gap between the data and

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<sup>13</sup> See Doc. No. 2-2, Second Amended Complaint.

<sup>14</sup> Ex. 2 (Doc. No. 33-2), Roster Depo. 243:15-244:3; see also 133:1-11; 167:4-16 (testifying that he did not do any testing on the gun or gun metal to check for a defect).

<sup>15</sup> Ex. 2 (Doc. No. 33-2), Roster Depo. 181:16-182:10.

<sup>16</sup> Opp., pp. 7-8.



the opinion offered.”<sup>17</sup> Mr. Roster’s opinion is based on an unreliable methodology and must be excluded.

### **CONCLUSION**

For the foregoing reasons, Federal Cartridge respectfully requests that the Court grant its Motion to Exclude Tom Roster.

DATED this 7th day of November, 2017.

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<sup>17</sup> *Heer v. Costco Wholesale Corp.*, 589 Fed. App’x 854, 861 (10th Cir. 2014).

**CERTIFICATE OF SERVICE**

I hereby certify that on this 7th day of November, 2017, I electronically filed the foregoing **FEDERAL CARTRIDGE COMPANY'S REPLY MEMORANDUM IN SUPPORT OF MOTION TO EXCLUDE TOM ROSTER** with the Clerk of the Court using the CM/ECF efilings system, which sent notification of such filing to the following:

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